

Appl. No. 09/652,396
Amdt. Dated July 30, 2003
Reply to Office Action of April 30, 2003

• • R E M A R K S / A R G U M E N T S • •

The Official Action of April 30, 2003 has been thoroughly studied. Accordingly, the following remarks are believed to be sufficient to place the application into condition for allowance.

Claims 4, 5 and 7-9 are pending in this application.

Claims 4, 5 and 7-9 stand rejected under 35 U.S.C. §103(a) as being unpatentable over European Patent Application No. 0 373 974 to Manning et al. in view of U.S. Patent No. 5,573,841 to Adam et al., U.S. Patent No. 5,281,461 to Greenway et al., and U.S. Patent No. 5,914,084 to Benson et al.

The Examiner has relied upon Manning et al. as disclosing a method of making a nonwoven fabric comprising the steps of forming a slurry of pulp fibers and thermoplastic fibers, depositing the fibers to form a wet sheet and hydraulically entangling the fibers. The Examiner states that Manning et al. teaches fibers that have the dimensions claimed by applicants.

The Examiner conceded that Manning et al. does not disclose the weight percent of the fibers in the slurry.

The Examiner has accordingly relied upon Adam et al. as in forming a fibrous slurry that slurry should contain about 0.01 to 1.5 percent by weight of fibers.

In combining the teachings of Manning et al. and Adam et al., the Examiner takes the position that "it would have been obvious....to have formed the slurry of Manning et al so that is comprised 0.01 to 1.5 percent by weight fibers."

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The Examiner has conceded that neither Manning et al. nor Adam et al. that the hydroentangling step should also form protuberances on the nonwoven fabric.

The Examiner has accordingly relied upon Greenway et al. as teaching that hydroentangling a fibrous web against a support surface which has a plurality of conical protrusions produces a web which has a uniform and repeating pattern of nodes which have a conical shape.

In combining the teachings of Manning et al., Adam et al. and Greenway et al. the Examiner takes the position that:

It would have been obvious....to have hydroentangled the web of Manning et al as taught by Greenway et al in order to both entangle and pattern the fibrous web.

The Examiner concedes that Greenway et al. does not disclose the use of a smooth roll and a patterned roll to form the embossments.

The Examiner has accordingly relied upon Benson et al. as teaching that either two patterned rolls may be used or a smooth roll and a patterned roll may be used to emboss hydroentangled fabrics.

In combining the teachings of Manning et al., Adam et al., Greenway et al. and Benson et al. the Examiner takes the position that:

It would have been obvious to have employed one smooth roll and one patterned roll to emboss the fabric of Greenway.

As the Examiner concedes, neither Manning et al. nor Adam et al. teach forming protuberances on the nonwoven fabric.

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Benson et al. teaches the formation of protuberances as the Examiner correctly notes. However, the teachings of Benson et al. are not applicable to either Manning et al. or Adam et al. for several reasons.

In particular, the protuberances of Benson et al. provide a specific function which is not required by Manning et al. so there is a complete lack of motivation of providing Manning et al. with the protuberances of Benson et al.

In addition, applicants' claimed discrete protuberances are structurally distinguishable from the protuberances of Benson et al.

Benson et al. describes a "stable nonwoven web having an enhanced extensibility" that is prepared by mechanically "necking" a nonwoven web and forming "stabilizing embossments" that extend "across the stabilized necked nonwoven web 12 from one edge to the other edge."

Benson et al. teach that having the embossments extend across the width of the web "is very important as this sets the fibers across the entire width of the web thereby stabilizing the web."

In Fig. 8 Benson et al. depicts "a spaced apart pattern of embossments" that "would not effectively set the nonwoven web."

Manning et al. does not teach necking the hydroentangled web.

In Manning et al, a number of preformed wet-laid webs are superposed together and then subjected to a series of water jets to cause hydroentanglement of the fibers of the webs. The hydroentangled webs are thereafter dried "by conventional drying apparatus" and then subject to embossing.

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Absent teaching a step of necking the nonwoven fabric, there is no motivation in Manning et al. to form the "stabilizing" embossments of Benson et al.

That is, the only purpose of the embossments of Benson et al. is to stabilize the necking of the web. Absent performing a necking step in Manning et al., the embossments taught by Benson et al. provide no function and therefore their incorporation is not obvious for any reason found in the teachings of these references.

Even if the embossments of Benson et al. were incorporated into Manning et al. the resulting web would be structurally different from applicants' claimed invention which requires a plurality of discrete protuberances which are "spaced apart from one another in both a longitudinal and a transverse direction of the nonwoven fabric."

If anything, applicants' claimed protuberances are more comparable to Fig. 8 of Benson et al. which Benson et al. teaches "would not effectively set the nonwoven web."

Accordingly, Benson et al. actually teaches against the use of discrete protuberances which are spaced apart from one another in both a longitudinal and a transverse direction of the nonwoven fabric.

The Examiner states that Greenway et al. has been relied upon as teaching that hydroentangling a fibrous web against a support surface which has a plurality of conical protrusions produces a web which has a uniform and repeating pattern of nodes which have a conical shape.

Greenway et al. does not teach a "support surface which has a plurality of conical protrusions" as the Examiner purports.

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Accordingly, the Examiner's reliance upon Greenway et al. is improper and the rejection of the claims which is based upon the improper reliance upon Greenway et al. should properly be withdrawn.

Rather than teach a "support surface which has a plurality of conical protrusions" as the Examiner states, Greenway teach employing "an entangling member for supporting the web including a symmetrical pattern of fluid pervious void areas." (See column 2, lines 38-40)

At column 2, lines 52-60 Greenway et al, teach that: "In a preferred embodiment the entangling member is formed from a plate including a plurality of generally circular apertures." "Preferred entangling results are obtained by provision of baffle members including a radiused curvature which define apertures having a 'frusto-conical' configuration."

It is further pointed out that in addition to requiring apertures rather than protrusions, Greenway et al. teaches that during the hydroentanglement "control means are provided for focusing fluid energy associated with the fluid curtain into discrete concentrated pattern corresponding to the symmetrical void areas 54 of entangling member 52." (See column 6, lines 4-8)

Rather than teach a "support surface which has a plurality of conical protrusions" as the Examiner states, Greenway et al. teach a support plate with voids or apertures. Moreover, Greenway et al. teach that the fluid jets are concentrated in patterns which are directed at the voids or apertures. The result is a pattern of dense nodes which correspond to the aperture pattern as taught at column 7, lines 36-41.

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It is accordingly submitted that Greenway et al. does not teach a "support surface which has a plurality of conical protrusions." Moreover, it is submitted that Greenway et al.'s use of a support plate with apertures results in a unique structural embodiment of a textured nonwoven fabric with high density nodes.

Based upon the above, it is submitted that the Examiner's reliance upon Greenway et al. is improper and the rejection of the claims based upon the misinterpretation of Greenway et al. fails.

It is noted that Greenway et al. is concerned with producing a "textured" nonwoven fabric which is characterized by the high density nodes.

Manning et al. is concerned with producing a highly absorbent nonwoven fabric that has "clothlike softness and texture."

Manning et al.'s goal of ensuring softness would be lost or destroyed if the process of Greenway et al. were employed and the result was a nonwoven fabric with a pattern of high density nodes. These nodes would necessarily be significantly stiffer than the remaining portions of the fabric.

Accordingly, absent improper reliance upon applicants' own disclosure, there is no motivation to combine the teachings of Manning et al. and Greenway et al. in the manner suggested by the Examiner.

Therefore, the combination of Manning et al. and Greenway et al. (and Adam et al. and Benson et al.) is improper under 35 U.S.C. §103 which requires that the prior art relied upon to reject claims under 35 U.S.C. §103 must provide a suggestion or motivation for the combination.

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Note the holding in *Smithkline Diagnostics, Inc. v. Helena Laboratories Corp.*:

The Examiner cannot pick and choose among the individual elements of assorted prior art references to recreate the claimed invention; the Examiner has the burden to show some teaching or suggestion in the references to support their use in the particular claimed combination. *Id.* 8 USPQ 2d 1468, 1475 (Fed. Cir. 1988)

Also see *In re Wesslau*:

It is impermissible within the framework of Section 103 to pick and choose from any one reference only so much of it as will support a given position to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. *Id.* 147 USPQ 391 (CCPA 1965)

In relying upon Benson et al. on page 3 of the Office Action the Examiner states that:

It would have been obvious to have employed one smooth roll and one patterned roll to emboss the fabric of Greenway.

It is submitted that it is not obvious at all to take the fabric of Greenway et al. that is textured with high density nodes and employ the process of Benson et al. which utilizes embossing rolls.

The embossing rolls of Benson et al. would destroy the textured pattern required by Greenway et al. if used with the teachings of Greenway et al.

If the Examiner suggests using the process of Benson et al. to produce the textured fabric of Greenway et al., it is submitted that the high density nodes of Greenway et al. would be lost because the fluid jets that are concentrated and directed at the apertures in the support plate are required to produce the high density nodes.

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If the high density nodes are eliminated, the teachings of Greenway et al. would be destroyed and the combination of Greenway et al. and Benson et al. would be improper under the holding of the Board of Patent Appeals and Interferences in *Ex Parte Hartmann*:

References cannot properly be combined if effect would destroy invention on which one of reference patents is based. *Id.* 186 USPQ 366 (PTO Bd App 1974)

Accordingly, the combination of Greenway et al. and Benson et al. is improper as is the overall combination of Manning et al., Greenway et al. and Benson et al.

Based upon the above distinctions between the prior art relied upon by the Examiner and the present invention, and the overall teachings of prior art, properly considered as a whole, it is respectfully submitted that the Examiner cannot rely upon the prior art as required under 35 U.S.C. §103 to establish a *prima facie* case of obviousness of applicants' claimed invention.

It is, therefore, submitted that any reliance upon prior art would be improper inasmuch as the prior art does not remotely anticipate, teach, suggest or render obvious the present invention.

It is submitted that the claims, as now amended, and the discussion contained herein clearly show that the claimed invention is novel and neither anticipated nor obvious over the teachings of the prior art and the outstanding rejection of the claims should hence be withdrawn.

Therefore, reconsideration and withdrawal of the outstanding rejection of the claims and an early allowance of the claims is believed to be in order.

It is believed that the above represents a complete response to the Official Action and reconsideration is requested.


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If upon consideration of the above, the Examiner should feel that there remains outstanding issues in the present application that could be resolved, the Examiner is invited to contact applicants' patent counsel at the telephone number given below to discuss such issues.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 12-2136 and please credit any excess fees to such deposit account.

Respectfully submitted,


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